

REMARKS

Applicants respectfully request reconsideration and allowance of the present application.

In the Office Action, claims 58 and 66-72 were allowed. However, previously allowed claims 43-47 and 64 were rejected in view of a newly cited reference. As shown above, independent claim 43 has been amended to clarify that neither the crosslinked polymer layer having an opacifying material nor the crosslinked printable polymer layer appreciably flow at the transfer temperature. See, e.g., pg. 10, lines 9-12. No new matter has been added by this amendment.

Independent claim 43 was rejected under 35 U.S.C. § 102(e) in view of U.S. Patent No. 6,509,131 to Hare, et al.¹ However, Hare, et al. fails to teach all of the claimed limitations in independent claim 43. As an initial matter, Hare, et al. does not, contrary to the assertion in the Office Action, teach the presence of an opacifying material within any part of the transfer layer. The Office Action apparently cites Hare, et al.'s disclosure of a fluid viscosity modifier (e.g., an ink viscosity modify) for the disclosure of an opacifying material. Col. 8, lines 60-62. However, this disclosure is directed to a viscosity modifier – not an ink, and certainly not an opacifying material. The viscosity modifier is disclosed as being a polyethylene glycol, methyl cellulose, or polyvinyl alcohol. Col. 8, lines 34-39. Thus, Applicants submit that Hare, et al. fails to teach all of the claimed limitations of independent claim 43.

In any event, Hare, et al. fails to disclose that their transfer layer includes the specific combination of components as required in presently pending claim 43. Hare, et

¹ Applicants do not admit to the status of Hare, et al. as valid prior art under any section of 35 U.S.C. § 102.

al. discloses an imaging element having a support and a transfer layer. An optional release layer is interposed between the support and the transfer layer. Col. 8, lines 46-47. Hare, et al. discloses several different types of transfer layer configurations, none of which teach or even suggest the specific combination claimed in presently pending claim 43. In fact, the transfer layer of Hare, et al. “must” be capable of transfer from the support to a receptor element. Col. 4, lines 54-57. This transfer is achieved by a solid to solution phase transition of the transfer layer upon heating. Col. 4, lines 57-60. Thus, Hare, et al. fails to disclose that its transfer layer is constructed of at least 3 layers, 2 of which do not appreciably flow at the transfer temperature.

More specifically, Hare, et al. discloses that their transfer layer can include the compositions from either of four U.S. Patents. Col. 5, lines 26-28. Each of the specific four types of transfer layer taught by Hare, et al. is discussed in greater detail below.

First, Hare, et al. discloses that the transfer layer can be the materials of the second layer of U.S. Patent No. 5,501,902 to Kronzer (“the ’902 patent”). Col. 5, lines 33-34. The ’902 patent discloses that the second layer (i.e., the transfer layer of Hare, et al. in this embodiment) includes particles of a thermoplastic polymer in combination with a film-forming binder. In this embodiment, the entire transfer layer melts and flows at the transfer temperature. Thus, this type of transfer layer does not include two crosslinked polymer layers that do not appreciably flow at the transfer temperature.

Second, Hare, et al. discloses that the transfer layer can be the materials of the image receptive melt-transfer film layer of U.S. Pat. No. 5,271,990 to Kronzer, et al. (“the ’990 patent”). Col. 8, lines 65-67. In this transfer layer, two melt-flowable layers are present: a melt-transfer film layer and an image receptive film layer. The melt-

transfer film layer is comprised of a first thermoplastic polymer, and the image receptive film layer is comprised of a second thermoplastic polymer. The Office Action apparently cites the disclosure of the cross-linked ethylene methacrylic acid copolymer for use in the melt-transfer layer as anticipating both crosslinked polymer layers required by presently pending claim 43. However, Applicants point out that both of these layers in the transfer layer (even the melt-transfer layer including the cross-linked ethylene methacrylic acid copolymer) melt and flow at the transfer temperature. First, the '990 patent discloses that both the image-receptive film layer and the melt-transfer film layer melts below 180 °C. Thus, this embodiment of Hare, et al. does not disclose a cross-linked polymer layer that does not appreciably flow at the transfer layer – much less two different crosslinked polymer layers that do not appreciable flow at the transfer layer. In fact, no third layer is disclosed in combination with the melt-transfer film layer and the image receptive film layer.

Third, Hare, et al. discloses that the transfer layer can be the materials of the image receptive melt-transfer film layer of U.S. Pat. No. 5,242,739 to Kronzer, et al. ("the '739 patent"). Col. 9, lines 63-65. In this embodiment, the transfer layer may include a film-forming binder (selected from the group of ethylene-acrylic acid copolymers, polyolefins, and waxes) and a powdered thermoplastic polymer (selected from the group of polyolefins, polyesters, polyamides, waxes, epoxy polymers, ethylene-acrylic acid copolymers, and ethylene-vinyl acetate copolymers). Both the film-forming binder and the powdered thermoplastic polymer melt at the transfer temperature, and form a transfer layer that melts at the transfer layer.

Optionally, the image-receptive melt-transfer film layer can be separated into a melt-transfer film layer and an image-receptive film layer. In this instance, the melt-transfer film layer comprises a film-forming binder, and the image-receptive film layer comprises the combination of the film-forming binder and the powdered thermoplastic polymer. However, even in this embodiment, both of these transfer layers flow at the transfer temperature. Thus, this embodiment of Hare, et al. does not disclose a cross-linked polymer layer that does not appreciably flow at the transfer layer – much less two different crosslinked polymer layers that do not appreciable flow at the transfer layer. In fact, like the '990 patent, no third layer is disclosed in combination with the melt-transfer film layer and the image receptive film layer.

Finally, Hare, et al. discloses that the “cool-peel” transfer system of U.S. Patent No. 5,798,179 to Kronzer (“the ‘179 patent”) can be used as the transfer layer. In this embodiment, the transfer layer is made of the third layer of the ‘179 patent includes a thermoplastic polymer that melts at the transfer temperature, and can be formed from a film-forming binder (e.g., a combination of a film-forming binder and a powdered thermoplastic polymer). Alternatively, the third layer may be a melt-extruded film, having the same melting properties. A fourth layer can be included overlying the third layer, and can be the second (or print) layer described above with reference to the ‘902 patent. A fifth layer may be located between the base sheet (actually between the release layer of the base sheet) and the third layer. This fifth layer includes a film-forming binder and optionally a powdered thermoplastic polymer. Nonetheless, according to the ‘179 patent, none of these layer include a crosslinked polymer. In fact, all of these layers melt and flow at the transfer temperature. Thus, this embodiment of

Hare, et al. does not disclose a cross-linked polymer layer that does not appreciably flow at the transfer layer – much less two different crosslinked polymer layers that do not appreciable flow at the transfer layer.

For at least the above reasons, Applicants respectfully submit that independent claim 43 is patentable over Hare, et al., either alone or in any combination. As such, Applicants request reconsideration and allowance of claims 43-51 and 64. However, should any further questions or concerns arise after consideration of this Response, Examiner Dicus is invited and encouraged to contact the undersigned.

Please charge any additional fees required by this Response to Deposit Account No. 04-1403.

Respectfully requested,
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